Model 390 Telephone Test Set
Operating Instructions

The Model 390 Telephone Test Set is designed for use by wiring installation and repair technicians for two-way communication and testing line conditions. Able to withstand rugged environmental use, the unit is water-resistant and the cordset can be removed without opening the Telephone Test Set. The Model 390 can dial in tone and pulse modes, presents a high impedance monitor, and contains LED polarity indication and an audible ringer. Up to 10 telephone numbers may be stored in its reprogrammable memory.

Features
- Tone and pulse dialing
- Last number redial
- 10 number programmable memory with battery back-up
- High impedance monitor
- Line disconnect
- Audible ringer
- Microphone mute
- Timed break recall
- Ground start option
- Resistance to “raw” 50 volt supply application
- Ergonomic design
- Rugged construction, molded in high impact polypropylene
- Water-resistant
- Hanging loop and belt clip

Controls and Indicators
MON/TALK switch. This switch enables the Model 390 to either MONitor a line, without disturbing information on it, or TALK, like an ordinary telephone “off-hook”. Switching back to MON will end the call. In this position, like the “on-hook” position of an ordinary telephone, an incoming call will be indicated by the built-in audible ringer.

PULSE/TONE switch. Selects the dialing mode.
The dialing mode can be changed during number dial-up if required.

DIS button. This push button is a quick way to DISconnect from the telephone line. It functions with the MON/TALK switch in either position, but is normally used with the switch in the TALK position.

POL button. Pushing this button shows the POLarity of the telephone line by lighting one of the two LEDs directly above the POL button. Correct polarity will light the green LED, and reversed polarity will light the red LED. POL may be used with the MON/TALK switch in either position, but the LED will be brighter in the MON position than in the TALK position.

Keypad buttons are located on the reverse side of the receiver and transmitter.
- 0-9 - Numbers for dialing
- P - Programmable memory used to program up to 10 telephone numbers
- GS - Ground start
- TBR - Timed break recall
- M - Memory recall used when dialing a stored telephone number or for last number redial
- MUTE - Microphone mute

Operation

1. Dialing. Connect the Model 390 to the wires to be used for the communication circuit using the alligator clips. Push switch to the TALK position. If power is present, a dial tone will be heard. Dial using the keypad as you would using an ordinary telephone.
   Select tone or pulsed dialing by using the switch marked PULSE/TONE on the side of the unit.

2. Disconnect. To end a call, press the DIS button located just below the receiver. This operates the same as the flash key on a household phone. You can also push the switch to the MON position to end a call.
3. Memory storage of frequently used numbers. The Model 390 can store 10 telephone numbers. The stored numbers correspond to numbers 0-9 on the keypad. Each stored number can contain up to 18 digits.

To store a number:
- Connect the Model 390 to an active line in the TALK position.
- Press P on the keypad, then the digit where you wish to store the telephone number (i.e. 2).
- Enter the telephone number to be stored.
- Press either P or switch to MON. The telephone number will be stored but will not be dialed.

To use a stored number:
- Connect the Model 390 to an active line in the TALK position.
- Press M on the keypad, then the digit where the phone number is stored (i.e. 2).
- The number will now be dialed.

4. Last number redial. The last number dialed is kept in memory until replaced by the next manually dialed number.
- Connect the Model 390 to an active line in the TALK position.
- Press and release the DIS button located just below the receiver.
- Press M on the keypad twice. The number will now be dialed.

5. Ringer. The Model 390 has a built-in ringer. If the line connected to the Model 390 should receive a call while in the MON position, the ringer will activate, alerting the technician.

6. Mute. To activate the microphone mute, press MUTE on the keypad. The microphone will be cut-off for as long as MUTE is pressed.

7. Polarity. Press the POL button below the keypad. The green LED will light for good polarity.

8. Monitor. Select MON to check a line without disturbing its transmission.

9. Timed break recall. Press the TBR button to disconnect from the line for 100ms, as required by certain PBX systems.

10. Ground start. The Ground start feature (GS button on the keypad) requires the use of a 3-lead cordset. Please contact Progressive Electronics, Inc. for further information.

Maintenance

The only maintenance required is the factory replacement of the battery, which should last at least six years.

Cordset. The cordset on the Model 390 is removable. Remove the two screws and clamp assembly, remove the rubber grommet, and unlatch the plug inside. Fitting a new cordset is the reverse procedure.

Should the battery need replacement or the Model 390 require any other maintenance, please contact Progressive Electronics, Inc. at (602) 966-2931.

Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>9.5 x 3 x 2.5``</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1 lb.</td>
</tr>
<tr>
<td>Pulse Dialing</td>
<td>1000 x ± 1 pps</td>
</tr>
<tr>
<td>Break</td>
<td>67 ms ± 4%</td>
</tr>
<tr>
<td>Break/make</td>
<td>2:1</td>
</tr>
<tr>
<td>Interdigit</td>
<td>800 ms</td>
</tr>
<tr>
<td>Pre-dial</td>
<td>800 ms</td>
</tr>
<tr>
<td>Frequency Error</td>
<td>± 1%</td>
</tr>
<tr>
<td>Tone level</td>
<td>-13 to -9 dBm</td>
</tr>
<tr>
<td>Pre-emphasis</td>
<td>+2 dBm ± 1 dB</td>
</tr>
</tbody>
</table>

DTMF Dialing

| Monitor Impedance | >50kΩ up to 25kHz |
| Microphone Type   | Electret         |
| Receiver Type     | Rocking armature |
| Timed Break Recall| 100ms            |